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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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24737	7590	10/06/2006	EXAMINER	
PHILIPS INTELLECTUAL PROPERTY & STANDARDS			MACCHIAROLO, PETER J	
P.O. BOX 3001			ART UNIT	
BRIARCLIFF MANOR, NY 10510			PAPER NUMBER	
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DATE MAILED: 10/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/521,183	Applicant(s) BECHTEL ET AL.	
	Examiner Peter J. Macchiarolo	Art Unit 2879	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 January 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/14/2005</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Information Disclosure Statement

The information disclosure statement (IDS) submitted on 01/14/2005 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

Drawings

The drawings are objected to because figures 2-6 appear to be sectional views. However, they do not conform with 37 C.F.R. § 1.84.

Applicant is reminded that the plane upon which a sectional view is taken should be indicated on the view from which the section is cut by a broken line. The ends of the broken line should be designated by Arabic or Roman numerals corresponding to the view number of the sectional view, and should have arrows to indicate the direction of sight. Hatching must be used to indicate section portions of an object, and must be made by regularly spaced oblique parallel lines spaced sufficiently apart to enable the lines to be distinguished without difficulty. Hatching should not impede the clear reading of the reference characters and lead lines. If it is not possible to place reference characters outside the hatched area, the hatching may be broken off wherever reference characters are inserted. Hatching must be at a substantial angle to the surrounding axes

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or principal lines, preferably 45°. A cross section must be set out and drawn to show all of the materials as they are shown in the view from which the cross section was taken. The parts in cross section must show proper material(s) by hatching with regularly spaced parallel oblique strokes, the space between strokes being chosen on the basis of the total area to be hatched. The various parts of a cross section of the same item should be hatched in the same manner and should accurately and graphically indicate the nature of the material(s) that is illustrated in cross section. The hatching of juxtaposed different elements must be angled in a different way. In the case of large areas, hatching may be confined to an edging drawn around the entire inside of the outline of the area to be hatched. Different types of hatching should have different conventional meanings as regards the nature of a material seen in cross section.

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because several different reference characters have been used to designate the same part. For example, reference character "4" has been used to designate both a first and second electrode

Furthermore, reference characters "4" and "7" have both been used to designate a second electrode.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the

drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The disclosure is objected to because of the following informalities:

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Paragraph 12 of the instant published specification (PGPUB 20050218797) recites "the embodiment as claimed in claim 2." This recitation of embodiment details by referring to the claim is not allowed. The specification is replete with this informality (see for example paragraphs 13-15) and all occurrences should be appropriately corrected.

Claim Objections

Claims 6 and 9 are objected to because of the following informalities:

Claim 6, which may depend from claim 4, recites "the second organic layer," however, claim 4 fails to provide proper antecedent basis for this limitation.

Claim 9, which may depend from claim 7, recites "the fourth organic layer," however, claim 7 fails to provide proper antecedent basis for this limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Kiryushev et al (USPN 5962967: “Kiryushev”).

Regarding claim 1, Kiryushev discloses in at least figures 1 and 3, an electroluminescent device, which comprises a first set of bands (22) and a second set of bands (24), which are arranged in such a way, that they form a two-dimensional mesh with points of intersection (26) between the bands of the first set (22) and the bands of the second set (24), the bands in each case consisting of a sequence of layers (best seen at figure 3) and at least one set of bands containing a light-emitting substance (30), which emits light when a voltage is applied between the first set of bands (22) and the second set of bands (24, see also ABSTRACT).

Regarding claims 2 and 3, Kiryushev discloses in at least figures 1 and 3 the bands in each case contain an organic layer (PPV, col. 3, ll. 33-35) and at the points of intersection (26) the organic layer (30) of the first set of bands (22) is in contact with the organic layer (30) of the second set of bands (24).

Claims 1-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Guberman et al (USPGPUB 20020074937; “Guberman”).

Regarding claim 1, Guberman discloses in at least figures 2 and 3 an electroluminescent device, which comprises a first set of bands (32) and a second set of bands (34), which are arranged in such a way, that they form a two-dimensional mesh with points of intersection (36) between the bands of the first set (32) and the bands of the second set (34), the bands in each case consisting of a sequence of layers (best seen at figure 3) and at least one set of bands containing a light-emitting substance (16a, 16b, 16c), which emits light when a voltage is applied between the first set of bands (32) and the second set of bands (34, see also ABSTRACT).

Regarding claim 2, Guberman discloses in at least figures 2 and 3 the bands in each case contain an organic layer (16a, 16b, see paragraph 16) and at the points of intersection (36) the organic layer (16b) of the first set of bands (32) is in contact with the organic layer (16a) of the second set of bands (34).

Regarding claim 3, Guberman discloses in paragraph 16 the organic layer is an organic polymer.

Regarding claim 4, Guberman discloses in at least figures 2 and 3 a band (42) of the first set of bands (32) has a substrate (12a), a first electrode (14a) adjoining the substrate (12a) and a first organic layer (16a) adjoining the first electrode (14a).

Regarding claim 5, Guberman discloses in at least figures 2 and 3 a second organic layer (16c) which adjoins the first organic layer (16a).

Regarding claim 6, Guberman discloses in paragraph 16 the organic layers of 16a-16c can be EL-organic systems.

Regarding claim 7, Guberman discloses in at least figures 2 and 3 a band (44) of the second set of bands (34) has a substrate (12b), a second electrode (14b) adjoining the substrate (12b) and a third organic layer (16b) adjoining the second electrode (14b).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guberman.

Regarding claims 8 and 9, Guberman discloses in paragraph 16 the organic layers of 16a-16c can be EL-organic systems, but is silent to a forth organic layer which adjoins the second organic layer.

However, the Examiner takes Official Notice that in an EL-organic system, an organic layer, such as a hole injecting or hole transporting layer is well-known in the art to improve the efficiency of the light emitting device.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Guberman with a hole-conducting material to improve the light emitting efficiency of the device.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Guberman in view of Aoyama et al (US PG PUB 20010043043; "Aoyama").

Regarding claims 10 and 11, Guberman discloses the light emitting layer 16 is an EL-organic system, but is silent to an additional layer being situated between the substrate (12a) and the second electrode (14b).

However, the Examiner takes Official Notice that in an EL-organic system it is known in the art to include an additional layer, such as a pigment containing color filter, situated between a substrate and a second electrode is well-known to improve color purity, as evidenced by Aoyama at figure 1, element 2.

Therefore, in view of the above discussion, it would have been obvious to one having ordinary skill in the art at the time the invention was made to construct the device of Guberman with an additional layer, such as a pigment containing color filter, situated between a substrate and a second electrode to improve the color purity of the emitted light.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Any inquiry concerning this communication or earlier communications from the


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examiner should be directed to Peter J Macchiarolo whose telephone number is (571) 272-2375.

The examiner can normally be reached on 8:30 - 5:00, M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nimeshkumar Patel can be reached on (571) 272-2475. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to be 'PJM', with a small 'pjm' printed below it.A handwritten signature in black ink, appearing to be 'N. Patel', written in a cursive style.

NIMESHKUMAR D. PATEL
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800